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| 10/083,032 | 02/26/2002 | H. Brock Kolls | USE-674US | 3265 |

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RATNERPRESTIA
P O BOX 980
VALLEY FORGE, PA 19482-0980

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| EXAMINER |
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TROTTER, SCOTT S

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| ART UNIT | PAPER NUMBER |
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3694

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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| 3 MONTHS | 02/27/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/083,032

Applicant(s)

KOLLS, H. BROCK

Examiner

Scott S. Trotter

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/15/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-154 is/are pending in the application.
- 4a) Of the above claim(s) 2, 3, 6-14, 16, 17, 19-21, 25-51, 53, 55-65, 67-81, 83-87, 89-113, 115-131, 133, 134, 139-145, 147, 148, 150, and 151 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-154 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date : 1/13/03, 2/26/02, 11/25/02, 12/06/04, 4/15/04.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the 2nd paragraph of 35 U.S.C. §112:
2. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-154 are rejected under 35 U.S.C. §112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In view of the nature and scope of Applicants' invention, Applicants present an unreasonable number of claims which are repetitious and/or multiplied, the result of which confuses rather than clarifies the claimed subject matter. Therefore, in accordance with MPEP §2173.05(n), claims 1-154 are rejected under 35 U.S.C. §112, 2nd paragraph based on undue multiplicity.
4. Also in accordance with MPEP §2173.05(n) and on or about December 7, 2006 a telephone call was made to Stephen Weed to request that Applicants select a specified number of claims (e.g. 25) for purposes of examination. After the phone call noted above, the Examiner had telephonic conversations with Mr. Weed discussing the undue multiplicity rejection. Mr. Weed as Applicants' representative(s) stated that he would email the applicants election which he did on December 18, 2006 they elected claims 1, 4, 5, 15, 18, 22, 23, 24, 52, 54, 66, 82, 88, 114, 132, 135 through 138, 146, 149, 152, 153 and 154 for prosecution at this time. Claims 2, 3, 6-14, 16, 17, 19-21, 25-51, 53, 55-65, 67-81, 83-87, 89-113, 115-131, 133, 134, 139-145, 147, 148, 150, and 151 are all withdrawn from prosecution.

Claim Rejections - 35 USC § 102

5. Claims 1, 15, 22, 23, 24, 54, 66, 88, 114 132, 135, 138, 146, 152, 153, and 154 are rejected under 35 U.S.C. 102(e) as being anticipated by Howell et al. (U.S. Patent 6,462,644 B1).

As for claim 1 Howell teaches:

A semiconductor comprising:

a micro processing unit; (*See column 4 lines 31-32*)

a vending equipment interface interconnected with said micro processing unit for interconnecting said semiconductor to a vending machine; (*See abstract*)

and

an interactive interface interconnected with said micro processing unit, said interactive interface data communicates with a computing platform; (*See abstract*) and

a plurality of application code executed by said micro processing unit for effectuating at least one of the following: a cashless vending transaction with said vending machine, monitoring or control of said vending machine, or data communication with a remote host computer. (*See abstract. Howell provides monitoring.*)

As for claim 4 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment interface is at least one of the following: a vend machine controller, a bill interface, a coin interface, a mimic MDB interface, a MDB interface, or a DEX interface. (*See Column 4 Lines 28-47. The vending machine controller is connected to either a MDB or Dex interface.*)

As for claim 15 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment interface is a DEX compliant interface, for interconnecting said semiconductor to a DEX port. (See *Column 4, Lines 35-38*. Vending machine controller is connected to the vendor interface unit via either DEX or MDB.)

As for claim 22 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said micro processing unit having data communication access to a memory device implements an MDB TRANSACTION STRING in said memory device. (See *Column 4 Lines 28-47*. Connections made using the MDB protocol will inherently use MDB TRANSACTION STRINGS to communicate.)

As for claim 23 Howell teaches:

The semiconductor in accordance with claim 22 wherein, said MDB TRANSACTION STRING comprises at least one of the following fields: a VEND STATE field, a MAX VEND SALE field, a SALE PRICE field, a COLUMN field, or a VEND FLAG field. (See *Column 8 Lines 61-66*. Among the messages being passed is an alarm parameter. Also see *Column 5 Lines 34-39*. The system can support sending software updates and changing prices so it can inherently send any contemplated data back and forth.)

As for claim 24 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform by way of said interactive interface data communicates a command to said

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semiconductor to request said MDB TRANSACTION STRING data be cleared. (See *Column 4 Lines 28-47*. Clearing the transaction string data is inherent otherwise the device would only be able to communicate once.)

As for claim 54 Howell teaches:

The semiconductor in accordance with claim I wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request a vending session previously started be terminated. (See the rationale of claim 1 above. Termination of connections is inherent otherwise a device would have to maintain a potentially near infinite number of connections.)

As for claim 66 Howell teaches:

The semiconductor in accordance with claim I wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate captured and stored MDB bus data to said computing platform. (See *Column 4 Line 64 through Column 5 Line 5 and Column 5 Lines 34-39*. The host communicates with the various vending machines receiving data from each of them. While all of those transmissions could be prescheduled the ability to send software to the vending machines inherently includes the ability to send new commands to the vending machines because software consists of many commands combined together to achieve some purpose. So the ability to send software is the ability to send commands.)

As for claim 88 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate USALIVE configuration data to said computing platform. (*See Column 4 Lines 64-67.* Handshaking between two communication devices is what is being described in the specification when it discusses USALIVE configuration data being passed.)

As for claim 114 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor initiate DEX query mode inquiry of said vending machine. (*See Column 4 Lines 64-Column 5 Lines 2, and Column 4 Lines 33-38.* The devices were communicating using DEX in order to receive the data they must initiate query mode of operation. Therefore DEX query mode is inherent in the operation. The specification also states that for further information regarding DEX query mode the EVA-DTS DEX protocol standard should be referred to. That means that means that DEX query mode is part of the standard and well known in the art.)

As for claim 132 Howell teaches:

A semiconductor implementing an interactive interface communication protocol with a computing platform, said semiconductor comprising:
a micro processing unit; (*See column 4 lines 31-32*)
a vending equipment interface interconnected with said micro processing unit for interconnecting said semiconductor to a vending machine; (*See abstract*) and

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an interactive interface interconnected with said micro processing unit, said interactive interface data communicates with said computing platform, (*See abstract*) wherein data communication between said semiconductor and said computing is in accordance with said interactive interface communication protocol; (Bottom of page 38 of the Specification received 2/26/2002 details that the communications are serial communications which are well known and the RS232 shown in *Figure 3 of Howell* is a serial communication device.) and a plurality of application code executed by said micro processing unit for effectuating at least one of the following: a cashless vending transaction with said vending machine, monitoring or control of said vending machine, or data communication with a remote host computer. (*See abstract. Howell provides monitoring.*)

As for claim 135 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface is at least one of the following: a vend machine controller, a bill interface, a coin interface, a mimic MDB interface, a MDB interface, or a DEX interface. (*See Column 4 Lines 28-47. The vending machine controller is connected to either a MDB or Dex interface.*)

As for claim 138 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface is an MDB compliant interface, for interconnecting said semiconductor to said vending machine, said vending machine having an MDB bus. (*See Column 4 Lines 28-47.*)

As for claim 146 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface is a DEX compliant interface, for interconnecting said semiconductor to a DEX port. (See *Column 4, Lines 35-38*. Vending machine controller is connected to the vendor interface unit via either DEX or MDB.)

As for claim 152 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending machine is at least one of the following types: beverage style vending machines, snack style vending machines, specialty style vending machines, a copier, a fax machine, a personal computer, a data port, or office equipment. (See *Figures 1 and 4A*. In Figure 1 it looks like a cold beverage machine. In Figure 4A a data source is a Bottler which would be a beverage machine.)

As for claim 153 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said micro processing unit having data communication access to a memory device implements an MDB TRANSACTION STRING in said memory device. (See *Column 4 Lines 28-47*. Connections made using the MDB protocol will inherently use MDB TRANSACTION STRINGS to communicate.)

As for claim 154 Howell teaches:

The semiconductor in accordance with claim 153 wherein, said MDB TRANSACTION STRING comprises at least one of the following fields: a VEND STATE field, a MAX VEND SALE field, a SALE PRICE field, a COLUMN field, or a VEND FLAG

field. (See *Column 8 Lines 61-66*. Among the messages being passed is an alarm parameter. Also see *Column 5 Lines 34-39*. The system can support sending software updates and changing prices so it can inherently send any contemplated data back and forth.)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 82, 136, and 137 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howell.

As for claim 5 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment interface comprises a UART, said UART being configured to data communicate eight data bits and one address bit in addition to start and stop bits. (See *Fig. 3*. An RS232 is a UART. A UART can be configured to transmit data in any serial format. Therefore while Howell does not explicitly disclose formatting the data in a particular way it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select a format that could transmit the needed data.)

As for claim 82 Howell teaches:

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The semiconductor in accordance with claim 1 wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate with a printer. (See *Fig. 3*. The specification states the printer connection can be an RS232 connection, which is included in Howell making it obvious to attach a printer to the RS232 connection belonging to the device in Howell. While a printer is not shown in Howell it would have been obvious to a person of ordinary skill in the art at the time the invention was made that a printer could be connected via the RS232 connection.)

As for claim 136 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface comprises a UART, said UART being configured to data communicate eight data bits and one address bit in addition to start and stop bits. (See *Fig. 3*. An RS232 is a UART. A UART can be configured to transmit data in any serial format. While no particular format is suggested in Howell it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select a format that could transmit the needed data and eight data bits with a data parity check bit and start and stop bits is a standard format.)

As for claim 137 Howell teaches:

The semiconductor in accordance with claim 136 wherein, said semiconductor by way of said UART detects a valid address byte data communicated from said vending machine, said valid address byte indicates data to follow from said vending machine is intended for said semiconductor, upon detecting said valid address byte said

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semiconductor data communicates with said vending machine. (See *Column 4 Line 64-Column 5 Line 3*. The handshaking is two devices agreeing that they are meant to talk to each other and how they are going to format the messages. The valid address byte is the equivalent of a phone number and it is just confirming the right number was called before sending the data. Detecting an address is a standard part of the Ethernet protocol. While Howell does not explicitly disclose the details involved in handshaking they would be obvious to a person of ordinary skill in the art at the time the invention was made.)

8. Claims 18 and 149 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howell in view of Squires (U.S. Patent 7,32,038 B1).

As to claim 18 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment interface comprises a UART, (See *Howell Figure 3*. RS232 is a UART. But Howell does not address pin level configurability.) said UART transmit line is pin level configurable during non-data communication idle states to a high impedance state or a low signal level state. (See *Squires claims 1 and 2*. Claim 1 is pin level configurable device and claim 2 is that device being a UART. Since the Squires device does not have a bypass it will supply high impedance, low signal level when it is off.)

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the pin level configurability of the Squires device for greater ease of use in the Howell device. (See *Squires abstract*.)

As to claim 149 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface comprises a UART, (See *Howell Figure 3*. RS232 is a UART. But Howell does not address pin level configurability.) said UART transmit line is pin level configurable during non-data communication idle states to a high impedance state or a low signal level state. (See *Squires claims 1 and 2*. Claim 1 is pin level configurable device and claim 2 is that device being a UART. Since the Squires device does not have a bypass it will supply high impedance, low signal level when it is off.)

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the pin level configurability of the Squires device for greater ease of use. (See *Squires abstract*.)

9. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howell in view of Miller et al. (U.S. Patent 5,959,869).

Howell teaches:

The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate MDB TRANSACTION STRING data (See *Column 4 Lines 28-47*. Connections made using the MDB protocol will obviously use MDB TRANSACTION STRINGS to communicate.) and card reader data to said computing platform (While Howell does not explicitly teach sending card reader data Miller teaches the MDB bus as a standard for communicating with card readers which are well known in the vending machine industry. See *Miller Column 11 Lines 19-22*.)


Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to send the MDB TRANSACTION String data and the card reader data to the computing platform where it could be data mined for marketing opportunities that might further vending machine profitability.

Conclusion

1. Any inquiry concerning this communication from the examiner should be directed to Scott S. Trotter, whose telephone number is 571-272-7366. The examiner can normally be reached on 8:30 AM – 5:00 PM, M-F.
2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell, can be reached on 571-272-6712.
3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
4. The fax phone number for the organization where this application or proceeding is assigned are as follows:

| | |
|----------------|---|
| (571) 273-8300 | (Official Communications; including After Final Communications labeled "BOX AF") |
| (571) 273-6705 | (Draft Communications) |

Scott Trotter
2/9/2007


MARY D. CHEUNG
PRIMARY EXAMINER